

Index to Volume XV

November 1934 to October 1935

ARTICLES

- A**
Acceptance Trials of two Diesel Engines for a Dock Fire Float, 145
Antwerp, Port of, 95
- B**
Bari, Port of, 37
Basrah, Port of, 306
Better Port Co-ordination, 235
Bordeaux Dredgers, 287
Bristol, Port of—Twenty-five Years' Progress, 262
- C**
Capetown, Port of, 69
Cherbourg, Port of, 221
Constanza, Port of, 243
Cork, Port of, 273
Creosoted Douglas Fir for Marine Construction, 300
- D**
Design of Ultra High Speed Flexible Coupling, 40
- E**
Ellesmere Port, New £150,000 Wharf, 252
- G**
Grangemouth, Port of, 125
Granton Harbour, Edinburgh, 215
Great Western Railway Docks, 152
- I**
Inventor of the Screw Pile, 131
- L**
Liverpool Observatory and Tidal Institute, 239
- M**
Marine Slipways, 132
Marseilles, Port of, 164
Melbourne, Port of, 3, 45
Milwaukee, Port of, 84
- P**
Port Elizabeth, 193
- Q**
Quebec, Port of, 291
- R**
Reinforced Concrete as a Structural Material, 232
Rotterdam, Development of Quay Wall Construction, 323, 350
- S**
Saint John Harbour, N.B., 247
Sea Loading Berths for Oil Tankers, 144a
Setubal, Port of, 335
Sunderland Quay, 11
- T**
Trinidad, Port of Spain, 282
- W**
Wallsend, New Graving Dock Constructed, 33
Whampoo Conservancy Board, New Dredger for, 295

COMMENTS AND NOTES

- A**
A New Capstan, 44
"Above Ground" Capstan, 44
Aden Port Trust, 23, 64, 114, 122, 160, 201, 228, 264, 272, 304, 354
Amsterdam, Port of, 81, 117, 182, 188, 218, 270, 286, 329, 334
Anchor Line Transfer, 192
Annual Reports, 2
Antwerp, Port of, 89
- B**
Bari, Port of, 31
Basrah, New Dredger launched, 177
Basrah, Port of, 301
Belfast Harbour Commissioners, 179
Bidston Dock, Birkenhead, 271
Birkenhead, Improvements for Landing Cattle, 121
Bombay Port Trust, 24, 35, 52, 77, 79, 150, 189, 234, 258, 354
Boston, Port of, U.S.A., 121
Britain's Jubilee Fair, 118
British Guiana (Demerara) Greenheart, 58
Bromborough Dock Progress, 241
- C**
Capetown, Port of, 61
Cherbourg, Port of, 211
China, A Large Wagon Tippler for, 294
Clyde Navigation Trust, 2, 56, 62, 116, 122, 184, 213, 263, 331
Cochin, Port of, Dredging Achievement, 121
Colombo, Port of, 188, 267, 286, 333
Colombo, Port of, Future Development, 251
Concrete for Dam Building, 272
Constanza, Port of, 241
Copenhagen, Port of, 140, 334
Cork, Port of, 271
Correspondence—C. Grasemann, 90
Czechoslovakian Free Port in Hamburg Development, 31
- D**
Danube Navigation Reorganized, 51
Dock and Harbour Authorities' Association, 121
Dublin New Wharf to be constructed at Alexandra Basin, 61
Dublin Tugs available as Tenders, 60
Dublin, Port of, 34
- E**
Ellesmere Port New Lay-bye, 211
Equipment of the Guinness Malt Silos at Park Royal, 17
- F**
Far Eastern Ports Notes, 36, 65, 115, 181
Fleetwood Dock Electrification, 91
- G**
Gdingen Harbour, Poland, Improvements, 185
German Ports, News from, 296
Gloucester, Port of, 211
Grangemouth, Port of, 121
Great Western Railway Docks, 188
- H**
Halifax, Port of, 116, 210
Hamburg, Increased Traffic, 67
Hartlepool's Dues Reduced, 140
Hudson Bay and Strait, Navigation Conditions in 1934, 192
Hull Additional Dock Accommodation needed for Trawlers, 31
Hull and the East Coast, 20, 35, 78, 93, 140, 162, 191, 230, 246, 280, 305, 357
Hull Docks Busy Season, 1
Hull Docks Trade, 185
Hull Graving Dock Charges, 61
Humber Ports Coal Export Trade, 241
- I**
Irish Harbour Matters, 30, 67, 92, 129, 182, 210, 229, 231, 270, 289, 356
Italian Harbour Affairs, 79, 176, 356
- L**
Legal Notes, 24
Llandudno Sea Defences, 56
Lloyd's Register Annual Summary of Mercantile Shipbuilding for the year 1934, 172
Lloyd's Register Shipbuilding Returns—
For Quarter ended 30th September, 1934, 28
For Quarter ended 31st December, 1934, 118
For Quarter ended 31st March, 1935, 264
For Quarter ended 30th June, 1935, 278
London's Shipping, Last Year's Increase, 211
- M**
Madras, Port of, 332
Manchester Dock Strikers Resume Work, 55
Manchester Ship Canal, 31, 82, 121, 211, 301
Manchester Ship Canal Company, 131
Marseilles, Port of, 151
Mechanical Handling of Freight Traffic, 190
Melbourne Port, Australia, 1
Mersey Cattle Wharf Improvements, 237
Mersey Docks and Harbour Board, 88
Mersey Docks and Harbour Board Annual Meeting, 61
- N**
Narva and Recal Estonia, Traffic at the Harbour during 1934, 144b
Near Eastern Port Matters, 68, 180, 293
Newcastle Corporation Quay, 331
News from All Quarters, 27, 54, 80, 120, 148, 178, 187, 238, 266, 290, 302, 360
North-East Coast Notes, 21, 82, 91, 150, 161, 192, 236, 261, 285, 321, 358
Notes from the North, 19, 43, 63, 113, 138, 174, 202, 212, 249, 292, 297, 303, 355
Notes of the Month, 330
- P**
Panama Canal Ports of Balboa and Cristobal Traffic during the Fiscal Year ended 30th June, 1934, 119
P.L.A. and Transshipments, 185
Port Elizabeth, 185
Port of London Authority, 25, 33, 88, 117
Port of London Authority Annual Report, 1
Port of London Notes, 21, 177, 186, 240, 250, 294, 329, 353
Port of London, New Development Scheme at the Royal Victoria and Royal Albert Docks, 151
Port of London's Shipping, 122
Preston Docks Jubilee, 301
- R**
Recent Legal Decisions, 179, 265
Ribble Navigation Progress, 81
River Tees, Improvement in Iron and Steel Shipments, 211
Rotterdam, Port of, 250
- S**
Seaborne Goods Traffic of the Lower Weser Ports during September, 1934, 60
Shanghai Dry Dock nears completion, 31
Shanghai now able to take larger Liners, 118
Shipping and Cargo Traffic at Continental North Sea Ports in 1934, 260
Simon, Henry, Ltd., Additions to the Directorate, 118
Southampton Docks, 141
Southampton Docks Extension Scheme nearing completion, 1
Southampton Docks Good Year, 61
Southampton Dock Imports of Bananas up 58 per cent., 301
Southampton Docks, Two New Records, 60
Southampton, Port of, Topics, 18, 53, 66, 90, 139, 184, 186, 237, 261, 289, 329, 355, 358
"Strathmore," New P. and O. Liner, 334
Sunderland, Official Opening of New Corporation Quay, 1
Swansea Docks, Additional New 20-ton Coal Shipping Appliance, 88
- T**
Tuticorin, Port of, Congestion, 31
Two Transporters for Dublin, 23
Tyne Improvement Commission, 51, 241
Tyne Developments, 301
Tyne's Italian Coal Trade, 185
- U**
United Kingdom Shipping, London's Big Lead, 61
- W**
Weser Inland Shipping, 60, 285, 349
Whampoa Harbour, China, Improvements, 89

Index to Volume XV

November 1934 to October 1935

ARTICLES

- A**
Acceptance Trials of two Diesel Engines for a Dock Fire Float, 145
Antwerp, Port of, 95
- B**
Bari, Port of, 37
Basrah, Port of, 306
Better Port Co-ordination, 235
Bordeaux Dredgers, 287
Bristol, Port of—Twenty-five Years' Progress, 262
- C**
Capetown, Port of, 69
Cherbourg, Port of, 221
Constanza, Port of, 243
Cork, Port of, 273
Creosoted Douglas Fir for Marine Construction, 300
- D**
Design of Ultra High Speed Flexible Coupling, 40
- E**
Ellesmere Port, New £150,000 Wharf, 252
- G**
Grangemouth, Port of, 125
Granton Harbour, Edinburgh, 215
Great Western Railway Docks, 152
- I**
Inventor of the Screw Pile, 131
- L**
Liverpool Observatory and Tidal Institute, 239
- M**
Marine Slipways, 132
Marseilles, Port of, 164
Melbourne, Port of, 3, 45
Milwaukee, Port of, 84
- P**
Port Elizabeth, 193
- Q**
Quebec, Port of, 291
- R**
Reinforced Concrete as a Structural Material, 232
Rotterdam, Development of Quay Wall Construction, 323, 350
- S**
Saint John Harbour, N.B., 247
Sea Loading Berths for Oil Tankers, 144a
Setubal, Port of, 335
Sunderland Quay, 11
- T**
Trinidad, Port of Spain, 282
- W**
Wallsend, New Graving Dock Constructed, 33
Whampoa Conservancy Board, New Dredger for, 295

COMMENTS AND NOTES

- A**
A New Capstan, 44
"Above Ground" Capstan, 44
Aden Port Trust, 23, 64, 114, 122, 160, 201, 228, 264, 272, 304, 354
Amsterdam, Port of, 81, 117, 182, 188, 218, 270, 286, 329, 334
Anchor Line Transfer, 192
Annual Reports, 2
Antwerp, Port of, 89
- B**
Bari, Port of, 31
Basrah, New Dredger launched, 177
Basrah, Port of, 301
Belfast Harbour Commissioners, 179
Bidston Dock, Birkenhead, 271
Birkenhead, Improvements for Landing Cattle, 121
Bombay Port Trust, 24, 35, 52, 77, 79, 150, 189, 234, 258, 354
Boston, Port of, U.S.A., 121
Britain's Jubilee Fair, 118
British Guiana (Demerara) Greenheart, 58
Bromborough Dock Progress, 241
- C**
Capetown, Port of, 61
Cherbourg, Port of, 211
China, A Large Wagon Tippler for, 294
Clyde Navigation Trust, 2, 56, 62, 116, 122, 184, 213, 263, 331
Cochin, Port of, Dredging Achievement, 121
Colombo, Port of, 188, 267, 286, 333
Colombo, Port of, Future Development, 251
Concrete for Dam Building, 272
Constanza, Port of, 241
Copenhagen, Port of, 140, 334
Cork, Port of, 271
Correspondence—C. Grasemann, 90
Czechoslovakian Free Port in Hamburg Development, 31
- D**
Danube Navigation Reorganized, 51
Dock and Harbour Authorities' Association, 121
Dublin New Wharf to be constructed at Alexandra Basin, 61
Dublin Tugs available as Tenders, 60
Dublin, Port of, 34
- E**
Ellesmere Port New Lay-bye, 211
Equipment of the Guinness Malt Silos at Park Royal, 17
- F**
Far Eastern Ports Notes, 36, 65, 115, 181
Fleetwood Dock Electrification, 91
- G**
Gdingen Harbour, Poland, Improvements, 185
German Ports, News from, 296
Gloucester, Port of, 211
Grangemouth, Port of, 121
Great Western Railway Docks, 188
- H**
Halifax, Port of, 116, 210
Hamburg, Increased Traffic, 67
Hartlepool's Dues Reduced, 140
Hudson Bay and Strait, Navigation Conditions in 1934, 192
Hull Additional Dock Accommodation needed for Trawlers, 31
Hull and the East Coast, 20, 35, 78, 93, 140, 162, 191, 230, 246, 280, 305, 357
Hull Docks Busy Season, 1
Hull Docks Trade, 185
Hull Graving Dock Charges, 61
Humber Ports Coal Export Trade, 241
- I**
Irish Harbour Matters, 30, 67, 92, 129, 182, 210, 229, 231, 270, 289, 356
Italian Harbour Affairs, 79, 176, 356
- L**
Legal Notes, 24
Llandudno Sea Defences, 56
Lloyd's Register Annual Summary of Mercantile Shipbuilding for the year 1934, 172
Lloyd's Register Shipbuilding Returns—
For Quarter ended 30th September, 1934, 28
For Quarter ended 31st December, 1934, 118
For Quarter ended 31st March, 1935, 264
For Quarter ended 30th June, 1935, 278
London's Shipping, Last Year's Increase, 211
- M**
Madras, Port of, 332
Manchester Dock Strikers Resume Work, 55
Manchester Ship Canal, 31, 82, 121, 211, 301
Manchester Ship Canal Company, 131
Marseilles, Port of, 151
Mechanical Handling of Freight Traffic, 190
Melbourne Port, Australia, 1
Mersey Cattle Wharf Improvements, 237
Mersey Docks and Harbour Board, 88
Mersey Docks and Harbour Board Annual Meeting, 61
- N**
Narva and Recal Estonia, Traffic at the Harbour during 1934, 144b
Near Eastern Port Matters, 68, 180, 293
Newcastle Corporation Quay, 331
News from All Quarters, 27, 54, 80, 120, 148, 178, 187, 238, 266, 290, 302, 360
North-East Coast Notes, 21, 82, 91, 150, 161, 192, 236, 261, 285, 321, 358
Notes from the North, 19, 43, 63, 113, 138, 174, 202, 212, 249, 292, 297, 303, 355
Notes of the Month, 330
- P**
Panama Canal Ports of Balboa and Cristobal Traffic during the Fiscal Year ended 30th June, 1934, 119
P.L.A. and Transshipments, 185
Port Elizabeth, 185
Port of London Authority, 25, 33, 88, 117
Port of London Authority Annual Report, 1
Port of London Notes, 21, 177, 186, 240, 250, 294, 329, 353
Port of London, New Development Scheme at the Royal Victoria and Royal Albert Docks, 151
Port of London's Shipping, 122
Preston Docks Jubilee, 301
- R**
Recent Legal Decisions, 179, 265
Ribble Navigation Progress, 81
River Tees, Improvement in Iron and Steel Shipments, 211
Rotterdam, Port of, 250
- S**
Seaborne Goods Traffic of the Lower Weser Ports during September, 1934, 60
Shanghai Dry Dock nears completion, 31
Shanghai now able to take larger Liners, 118
Shipping and Cargo Traffic at Continental North Sea Ports in 1934, 260
Simon, Henry, Ltd., Additions to the Directorate, 118
Southampton Docks, 141
Southampton Docks Extension Scheme nearing completion, 1
Southampton Docks Good Year, 61
Southampton Dock Imports of Bananas up 58 per cent., 301
Southampton Docks, Two New Records, 60
Southampton, Port of, Topics, 18, 53, 66, 90, 139, 184, 186, 237, 261, 289, 329, 355, 358
"Strathmore," New P. and O. Liner, 334
Sunderland, Official Opening of New Corporation Quay, 1
Swansea Docks, Additional New 20-ton Coal Shipping Appliance, 88
- T**
Tuticorin, Port of, Congestion, 31
Two Transporters for Dublin, 23
Tyne Improvement Commission, 51, 241
Tyne Developments, 301
Tyne's Italian Coal Trade, 185
- U**
United Kingdom Shipping, London's Big Lead, 61
- W**
Weser Inland Shipping, 60, 285, 349
Whampoa Harbour, China, Improvements, 89

ILLUSTRATIONS

A

Antwerp, Port of—
Bonaparte Lock, giving access to the Bonaparte and William Docks (Opened in 1811), 95
Campine and Asia Docks, 99
Fig. 1 and Fig. 2, 98
Fig. 3, 102
Fig. 4, Fig. 5 and Fig. 6, 103
Fig. 7 and Fig. 8, 106
Fire Station and Entrance to the Canal Dock, 97
Half-arch Cranes along the New South Quays, 100
Hydraulic Cranes along the Docks, 104
Junction of the First and Second Canal Docks, 109
Kattendijk Dock, Northern part, 99
Kattendijk Sea Lock, giving access to the Kattendijk Dock (Opened in 1860), 111
Lefebvre and America Docks, 105
Part of Albert Dock showing the Wet Docks, 97
Potash Stores, between Wet Docks Nos. 2 and 3, 105
Rovers Lock, Lefebvre Dock and Entrance to the Canal Dock, 94
Rovers Sea Lock, giving access to the Lefebvre Dock (Opened in 1909), 111
Six Grain Elevators transhipping Grain into Lighters, 108
South Antwerp Station, 95
South Barge Docks. The three Barge Docks are situated in the Southern part of the port, 996
The First Canal Dock and Branch Docks, 107
The Nine Dry-Docks of the Kattendijk Dock, 94
The Second Canal Dock, 109
View of 15-ton Loading Bridges, with Hoppers of 200-tons capacity, 111
Where the City meets the Harbour, 107

B

Bari, Port of—
Depositing Rock from Barges for the foundation of the New Breakwater, 39
General view of the New Port, 37
Pontoon "Romanus," 38
View of the completed Breakwater with the motor vessel "Oceania" alongside, 37
View of the New Breakwater, 38
View showing Blocks used for New Breakwater, with Pontoon, 39
Basrah, Port of—
A B.I.S.N. Coy.'s Steamer loading dates, Margil Wharf, 318
Aerial view Headquarters Offices and Main Gates, Transit Area, 306
Aerial view of Lower end of Main Wharves, Margil, 307
Aerial view of Northern Portion of the Port Area, Margil, 307
Aerial view of part of Port Transit Area, showing Transit Sheds, Warehouses, etc., 311
Bonded Warehouses for Heavy Packages—Margil Wharves, 312
Ellerman and Bucknall Steamer loading at Upper Wharves, Margil, 310
General view, Margil Wharves, 309
General view, Margil Wharves, 315
General view Margil Wharves from left bank of river, 308
General view, Margil Wharves from left bank of river, 310
Grain Loading, Margil Upper Wharves, 309
Grain Loading, Margil Upper Wharves, 310
Grain Loading into Native Craft, Margil Jetties, 316
Hansa Line Steamer discharging at Wharves, 313
Headquarters Offices of the Port of Basrah Directorate, 312
Margil Main Wharves, General view, 311
Native Craft at Margil Jetties for grain direct from rail, 316
"Onger," the latest Dredger supplied to the Port of Basrah, 313
Port Creek Dredger "Tawa," employed on reclamation of foreshore, 308
Rooka Channel Beacon, Basrah, 314
Section of the Port Marine Dockyard and Workshops, Margil, 306
Section of Stores and Yard at Fao Depot, the base for the dredging operations at Outer Bar, 319
Self-propelled Floating Crane, "Pahlwan," 30 tons lifting capacity, 319
Shaft-al-Arab Light Vessel, 314
Sheerlegs "Goliath," 80 tons lifting capacity, 317
Typical Transit Shed with import cargo, Margil Wharves, 318
Birkenhead Lairages for accommodation of sheep improved, 237

British Guiana (Demerara) Greenheart—
Coal Staiths at Blyth, Northumberland, built in 1884—Greenheart Sub-structure, 60
Dock Gate for the 130-ft. Entrance, Gladstone Dock, Liverpool, 59
East Pier, Shoreham Harbour, Greenheart and Australian Jarrah, 58
Greenheart Jetty at Ostend, Belgium, 59
Greenheart Lock Gates, Manchester Ship Canal, 59
Greenheart Logs awaiting shipment in British Guiana, 58
Bristol, Port of—
Portishead Dock, 263
Royal Edward Dock, showing connection by swing bridge with the Avonmouth Dock, 263
Bordeaux Dredgers—
Fig. 1, 287
The Suction Dredger "Pierre Lefort" at work in the Entrance Channel of the Port of St. Nazaire, 287
Semi-flexible Pipe Coupling, 288
Sea-going Suction Dredger "Pierre Lefort," dredging in rough weather in the Gironde Estuary, 288

C

Capetown, Port of, South Africa—
Close-up view of the Oil Fuel Tanks, 69
Cooling Jetty; Conveyor Gallery from the Grain Elevator, 71
Grain Elevator at Capetown, 72
Graving Dock in the Alfred Basin, 73, 74
Interior view of the Cooling Chambers, 75
Interior view of the Grain Elevator, 75
North-Eastern part of the New Basin, with a Government Dredger at work, 74
Panoramic view of the whole Harbour, 70, 71
Photograph taken on the East Pier, showing an Express Train alongside an Ocean Liner, 76
Small Craft in the Albert Basin, 73
South-Western Part of the New Basin, with the New Fishery Harbour, 70
Table Bay Harbour, Capetown, 1916, 69
The Breakwater, 76
View of the Eastern part of the South Arm and the Southern Elbow, 72
Cherbourg, Port of—
Caissons sunk in position, 220
Construction of a Reinforced Concrete Caisson, 223
East front of the main building of the Marine Station on the Quay of France, 220
East Quay of the Dock, 223
Equipment of the Quay of France, Landing Gangway and Cranes, 225
Equipment of the Quay of France, under erection, 225
Five-ton Crane at the Quay of France, 222
Interior of a Landing Gangway, with footway and endless band conveyor, 226
Liner berthed at the Quay of France, 220
Liner coming alongside the Quay of France, 227
Marine Station, Embarking and Landing Gallery, 222
Marine Station, Footbridge and stairways in reinforced concrete, 221
Sinking Caisson under compressed air, 224
South end of the Quay of France, with the Southern Arm of the Embarking and Landing Gallery and a travelling gangway in use, 227
South front of the Marine Station, 221
Towing a Caisson into place, 223
China: Fig. 1 and Fig. 2, 294
Constanza, Port of—
Fig. 1, 243
Photo A. New Jetty and General Cargo Shed of Reinforced Concrete, with 3-ton Semi-portable Quay Cranes, 245
Photo B. Marine Railway Station and Quay of the S.U.R., 245
Photo C. Grain Quay, with loading conveyor and silos beyond, 242
Photo D. Grain-drying Tower between two blocks of Silos, on the Grain Quay, 244
Photo E. Oil Tanks, with Harbour entrance beyond, 242
Traffic: Shipping and Goods, 241

Cork, Port of—
Cross Section of Deep-water Quays, 277
Haulbowline Island, Cork Harbour, with Basin and Graving Dock in foreground, 279
Junction of North and South Channels, Cork, with Patrick's Bridge in foreground, 274
Overseas Shipping discharging at South Jetties, Cork, 273
South Jetties with the Ford and Dunlop Factories in foreground, 279

Transatlantic Liners "Britannic," "Columbus," and "Ile de France," in Cork Harbour, 275

E

Ellesmere Port—
Another view of the Wharf and five 24-ton cranes, 256
Berthing of first ship to enter Wharf, 259
Construction of Wharf Piers, 257
Cross-section of Wharf at Pulp Boat and Coal Store, showing crane in position over pulp boat and coal hopper, 255
Cross-section through Wharf at China Clay House, showing crane in position over paper export boat and china clay hopper, 255
East half of Lay-bye showing steel sheet piled cross dam, 259
East half of Wharf and Lay-bye showing Main Copper Dam, 257
Excavation of Safety Trench between Lay-bye excavations and Site of Wharf, 257
General Arrangement Drawing of 24-ton Portable Electric Crank Level Luffing Crane installed on Bowater's New Wharf, 254
Lay-bye and Wharf for Bowater's Mersey Paper Mills, 252, 253
Mechanical Digger at commencement of operations, 257
Mechanical Digger removing top earth prior to Rock Excavation, 257
Plan of Bowater's New Wharf, 252, 253
Removal of broken rock by Bucket Dredger, 259
Removal of Main Cofferdam by floating Rock Breaker, 259
Removal of top of Main Dam to allow sufficient depth of water for floating Rock Breaker, 258
Top Wharf Deck showing cable trench prior to covers being fitted, 259
View from Crane Cab showing Railway Deck and Cable Trench, 259
View from East to West, showing Concrete Wharf prior to construction of Railway Deck, 258
View of the New Wharf showing the five 24-ton cranes, 256
Wharf Piers partly constructed and excavations and shuttering for counterfoils, 257
Wharf Press and Wave Wall completed immediately prior to admission of water to East half of Lay-bye, 258

G

Grangemouth, Port of—
Carron Dock, looking East: Vessel discharging heavy machinery to railway wagons, 126
Carron Dock: New Quay Wall Berth, Steamer discharging ex Antwerp, 130
Carron Dock, Ship loading at No. 1 Coal Conveyor, 124
Carron Dock: South side Roadway from level crossing bridge, 128
Carron Dock: Steamers discharging and loading in Hamburg and Rotterdam Berth, 128
General view of the South side of Grange Dock, showing the four modern Coal-loading Hoists, 125
Grange Dock: Coal Hoists (steamer coaling), Rail side; 124, 127
Grange Dock: View of Norway Steamer Berth, 124
Grange Dock: 35-ton Coaling Crane loading vessel; wagon tipping into hold, 130
Grange Dock: 35-ton Coaling Crane loading vessel; lifting wagon from rail, 125
Grangemouth Docks, Entrance looking towards Docks, Gates open, 129
New Wall Berth, Carron Dock: Vessel discharging timber to railway wagons by Hydraulic Cranes, 126
Granton Harbour—
Deep-water Coaling Berth, 216
Esparto Wharf, 217
General View of West Harbour, 215
Plan of Granton Harbour, 214
The Middle Pier, 215
Three-ton Electric Cranes at Esparto Wharf, 217
Transit Sheds and No. 2 Coaling Crane, 216
Trawlers at Middle Pier, 216
25-ton Coaling Crane, 216
Great Western Railway Docks—
Aerial View, Alexandra Docks, Newport, 158
Aerial View, Barry Docks, 153
Aerial View, Bute Docks, Cardiff, 159
Aerial view, Port Talbot Docks, 153
Aerial view, Swansea Harbour and Docks, 156
Battery of Coal Shipping Hoists, Alexandra Docks, Newport, 156

ILLUSTRATIONS—continued

Belt Conveyor Type of Coal Shipping Appliance, Roath Dock, Cardiff, 159
 Customs Examination of Jaffa Oranges in Transit Shed, Cardiff, 154
 Discharging Canadian Deals, Queen Alexandra Docks, Cardiff, 153
 Loading tinplates, galvanised sheets, etc., by electric cranes at Newport Docks, 152
 New Coal Shipping Hoist, Barry Dock, 152
 New Dredger "Foremost 49" for South Wales Docks, 156
 New Movable Coal Hoist at Newport Docks, 157
 New Movable Coal Shipping Hoist, King's Dock, Swansea, 157
 New 15-ton Electric Crane, G.W.R. Commercial Graving Dock, Cardiff, 158
 "Norfolk" Digging-out Appliance for dislodging coal which does not run freely, 154
 Shipping Large Coal through Escalator, Anti-breakage Appliance, 160, 188
 Tinplates and Galvanised Sheets in Transit Shed, Swansea Docks, 154
 Two New Coal Shipping Hoists, Roath Basin, Cardiff Docks, 157

I

Interesting Features in the Design of an Ultra High-speed Flexible Coupling—
 Fig. 1 and Fig. 2, 40
 Fig. 3, 41
 Fig. 4, 42

Italian Harbour Affairs—

New Electric Coal Unloading Plant in the Marghera Zone of the Port of Venice, 176

K

King's Lynn Docks and Railway Company—

A contrast in profiles: the New and the Old (near the half-tide dam), 205
 A Knee Strut concreted in, 209
 A Stank in position when renewing roller paths at Outer Lock Gates, 204
 Alteration to Main portion of Invert and Walls nearing completion, 205
 Block-setting completed: Excavation for first knee strut, 207
 Cutting the Walls, 208
 Driving Sheet Piles in preparation for stop for Half-tide Dam, 207
 First Pile being placed, 207
 Fixing New Lock Gate Cills, Outer Lock Gates, 208
 Half-tide Dam all in order, 204
 Knee Strut nearly completed; In situ concrete in hand, 209
 On the last lap adjacent to Half-tide Dam, 208
 Plan of the Docks, 206
 Reinforcement for Knee Strut being placed, 209
 Setting the Half-tide Dam Stop, 207
 Setting Protecting Iron at Mitre to prevent abrasion by Lock Gate Closing Chains, 204
 The very last stages, 208, 209

L

Liverpool Observatory—

Fig. 1 and Fig. 2, 239
 Fig. 3 and Fig. 4, 240

M

Marine Slipways, 132, 133, 134, 135, 136, 137

Marseilles, Port of—

A Ship berthing at the New Marine Station, 170
 Aerial view of Martiques and the entrance from the Etang de Caronte to the Etang de Berre, 167
 Aerial view of Port de Bone, 167
 Canal from Marseilles to the Rhone; Northern end of the Rove Tunnel, 168
 Canal from Marseilles to the Rhone, Southern end of the Rove Tunnel, 169
 Canal from Marseilles to the Rhone, Southern end of the Rove Tunnel, 172
 Fig. 1, 166
 La Joliette Basin: Aerial view taken about 1925, 166
 Opening of the Marine Station at La Joliette by the steamer "Tingad," 170
 Outer Breakwater of the Mirabeau Basin: Block-making Yard for 350-ton blocks, 170
 Outer Breakwater of the Mirabeau Basin: Deposition of a 450-ton Block, 171

A

Antwerp, Port of—February, 1935

B

Basrah, Port of—September, 1935
 Bari, Port of—December, 1934

C

Constanza, Port of, July, 1935
 Cork, Port of—August, 1935
 Cherbourg, Port of—June, 1935

Outer Breakwater of the Mirabeau Basin: Floating Sheer-legs transporting a 350-ton Block, 171
 Panoramic view of the Port about 1925, 164, 165
 Progress of Works at the North Jetty in La Joliette Basin and the New Marine Station, 170
 The Outer Breakwater of the Mirabeau Basin, at the point of junction between the sloping-sided Dyke and the vertical Wall, 168
 The Rolling-lift Bridge at La Rinede Crossing, 168
 View No. 1, March 8th, 1933—Placing a Foundation Trestle for the Shed on the North Jetty in La Joliette Basin, 166
 View of the Caronte Marine Quay and its equipment; the Caronte Viaduct in the background, 169

Melbourne, Port of—

Alfred Graving Dock, Williamstown, 5
 Bird's eye view of the Port, 3
 Electric Platform Tractor in operation at Victoria Dock, 9
 Interstate Swinging Basin and Timber discharging Berths, 45
 River Yarra Berthage showing entrance to future Appleton Dock, 4
 Station Pier, Port Melbourne, 46
 Three-ton Electric Cranes, Victoria Dock, 6
 Victoria Dock, showing the improved entrance, 7
 Williamstown Piers, 9

Milwaukee, Port of—

General aerial view, Milwaukee Harbour, 85
 Norwegian Freighter discharging cargo at Municipal Transit Shed No. 1, 86
 Plan of Milwaukee Harbour, 84

O

Oil Tankers' Sea Loading Berths—

Haifa Harbour: One of the 5-ton anchors secured to a barge before being placed in position at the sea loading berths, 144a
 Mooring Launches in Tripoli Harbour, 144a
 Type of Mooring Buoys in use, weight 2 tons each, 144b
 View showing how the flexible hose is brought on board a tank vessel, 144a

"Onger," A New Dredger, 177

P

Panama Canal Ports—

Atlantic Terminal; Coaling Station, Cristobal, 119
 Madden Dam Project, 119
 Petters 4-cyl. 55 b.h.p. Cold Starting Atomic Diesel Engine, 145

Port Elizabeth—

Eggs being transferred from a Lighter into a Ship for export, 201
 Hides and Skins baled for export in a Port Elizabeth Store, 196
 Historic Berthing of H.M.S. "Dorsetshire" at the Charl Malan Quay, 199
 Panoramic view of the Harbour at Port Elizabeth, 194, 195
 Pile-driving during construction of the New Docks, 198
 Port Elizabeth is South Africa's Premier Harbour for the Export of Wool, Bales of Wool "cut" for inspection, 196
 Reclamation Work on the Foreshore: View of South and Don Pedro Jetties, 193
 Steam-driven Block-setting Titan Crane, 50 tons load at 100-ft. radius, at end of Breakwater, 198
 The Breakwater, with the Dom Pedro Jetty, 193
 The North Arm (Charl Malan Quay) under construction, 200
 The Old Harbour before construction of the North Arm, 197
 The Tug "Lady Elizabeth" on the slipway, 199
 View of the South Jetty, showing its modern equipment, 200

Q

Quebec Harbour, 291

R

Rotterdam Quay Wall Construction—

Figs. 1 and 2, 322
 Fig. 3, 323
 Figs. 4 and 5, 324

SUPPLEMENTS

G

Grangemouth Docks—March, 1935

M

Marseilles, Port of—April, 1935

P

Port Elizabeth—May, 1935

Fig. 6, 325
 Figs. 7, 8 and 9, 326
 Figs. 10, 11 and 12, 327
 Figs. 13, 14 and 15, 328
 Fig. 16, 350
 Figs. 17, 18 and 19, 351
 Figs. 20, 21 and 22, 352
 Fig. 23, 353

Renold Chain on Banana Conveyor, 330

S

Setubal, Port of—

Aerial view of the New Harbour for Fishing Vessels, 345
 Aerial view of the Commercial Harbour, 345
 Coal Discharging Installation, 344
 Commercial Harbour in course of construction, 335
 Completed Stone Glacis, 342
 Construction of Quay Walls, 335, 339
 Dredger pumping spoil ashore, 340
 General view of the Port on completion of new works, 348
 New Slipway in course of construction, 336
 Pit Props and Oil Drums on New Quay Walls, 343
 Preserved fish for loading into lighters, 341
 Steamer taking in a cargo of pit props, 348
 The Pleasure Harbour in course of construction, 336, 338, 339
 View for Loading of Minerals, 343
 View under on of the New Wharves, 343
 Wharf No. 1 completed, 340
 Wharf No. 2 in course of construction, 337
 Wharf No. 4 in course of construction, 337, 338
 Wharf used for discharging fish, 341
 Work on Construction of the New Port, 339

Southampton Docks—

Cargo of South African fruit in No. 101 Shed at the New Docks Extensions, 142
 Grain for J. Rank, Ltd.'s New Flour Mills being discharged from "Temeraire" by Pneumatic Discharging Plant, 142
 S.S. "Majestic" in King George V. Graving Dock, 143, 144
 The "Westmoreland" discharging meat into cold storage, 141

Sunderland Quay—

Back Reinforced Concrete Wall; finished sections "E" and "F," 12
 Coal Conveyor delivering coal to a vessel, 17
 Electric Coal-conveying Plant on the New Quay, 16, 17
 First Coaling at New Quay, 15
 First Floor of Warehouse, 15
 General view looking West, showing reinforcement for Slab over Deck Beams between Monoliths 1 and 2, 14
 Ground Floor of Warehouse with Underhung Crane, 11
 Panoramic View of the New Corporation Quay, 12, 13
 Reinforced Concrete Retaining Wall, 12
 Showing rock outside of 4—5 Monoliths, 16
 Steel in Conveyor Pit, 15
 Sub-station Section of Back Wall, 15
 Trench for Back Wall, 13
 Under Quay at Monolith No. 10, looking East, 14
 View from top of Coal Conveyor, 13
 Warehouse and Quay from West End, 11
 Swansea Docks, New 20-ton Coaling Appliance, 88

T

Trinidad, Port of Spain—

Fig. 1, Cross Section of Wharf, 282, 283
 Fig. 2, Elevation of Wall, 283
 Fig. 3, Typical Section of Wall, 284

Two Transporters for Dublin, 22

Tyne Improvement Commission—

An Artist's impression of how the New Jarrow Staiths will appear when constructed at Jarrow and Hebburn-on-Tyne, 51
 Plan of the New Staiths at Jarrow which will speed up coal shipments, 50

W

Wallsend New Graving Dock—

No. 3 Dry Dock at Wallsend, 32
 Cofferdam at No. 3 Dock, 32

Whangpoo Conservancy Board—

Discharging Shoot showing thick mud, 296
 The Drag Cutter Suction Dredger "Chien She," 295
 View of Hoppers with thick mud entering, 295

S

Setubal, Port of—October, 1935

Sunderland, Port of—November, 1934

T

Table Bay Harbour—January, 1935

0

shing

, 345

struc-

on of

, 336

Quay

, 341

, 348

con-

43

337

337,

, 339

101

, 142

Mills

" by

grav-

into

shed

l, 17

New

rein-

reams

ung

tion

2

, 16

king

11

nice,

New

con-

-on-

nich

296

ien

ng,